



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/539,106	03/30/2000	Edward A. Hubbard	BAY3:006	7871 -

7590 05/13/2004

Brian W Peterman
O Keefe Egan & Peterman
1101 Capital of Texas Highway South
Building C Suite 200
Austin, TX 78746

EXAMINER

MAIS, MARK A

ART UNIT	PAPER NUMBER
----------	--------------

2664

DATE MAILED: 05/13/2004

12

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/539,106

Applicant(s)

HUBBARD, EDWARD. A.

Examiner

Mark A Mais

Art Unit

2664

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 31-56 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 31-56 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Specification

1. Applicant is again reminded, that under certain circumstances an application for patent is entitled to the benefit of the filing date of a prior nonprovisional application or provisional application which has at least one common inventor. The conditions are specified in 35 U.S.C. 120 for the benefit claim of a prior nonprovisional application and 35 U.S.C. 119(e) for the priority claim of a prior provisional application. In order to claim priority, a cross-reference to co-pending applications is required in the specification.

Claim Objections

2. Claims 36 and 48 is objected to because of the following informalities: it refers to a step of receiving a request from one of the Client systems to test a network site coupled to the network wherein the N host distributed devices receive the request from the Client system. First, it is uncertain if the claimed step is an additional step to claim 31's steps (a) through (c); or, second, if the step is a further limitation of claim 31's step (c). If the step is a further limitation of step (c), then there will be an antecedent basis problem under 35 USC 112, 2nd paragraph. However, for examination purposes, the step has been interpreted as an additional step to steps (a) through (c). Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

Art Unit: 2664

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 35 and 47 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claims contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Specifically, the specification includes no reference or information that would lead one of ordinary skill in the art to continuously run the test program and incrementally increase the number of distributed computing devices until the all of the non-failure (as opposed to unavailable) distributed computing devices are being used for only one task.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 41 and 53 recite the limitation "first time period" in the first line of the claims. There is insufficient antecedent basis for this limitation in the claim. Claims 31 and 43 each claim a "first time interval". Appropriate correction is required.

Claim Rejections - 35 USC §102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

Art Unit: 2664

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

8. Claims 31, 36-40, 43, 48-52, and 54 are rejected under 35 U.S.C. 102(a) as anticipated by Armentrout et al. (WO 01/14961 A2).

9. With regard to new independent claim 31, Armentrout et al. discloses a method of operating a distributed processing system having a network (**Fig. 1, network 28**) coupling a number M of Host distributed devices (**Fig. 1, providers 30, 32, 34, 36**) to process workloads (**computing tasks, page 6, lines 13-16; see also balancing data processing loads based on the capabilities of the provider computer and the bandwidth that is available to provide elements and tasks to provider computers, page 18, line 27 to page 19, line 2**) for the distributed processing system, a plurality of Client systems (**Fig. 1, clients 20, 22, and 24**) requesting processing of the workloads (**computing tasks, page 6, lines 13-16; see also balancing data processing loads based on the capabilities of the provider computer and the bandwidth that is available to provide elements and tasks to provider computers, page 18, line 27 to page 19, line 2**), one or more network sites (**Fig. 1, network 29**) coupled to the network (**Fig. 1, network 28**) for providing services (**Fig. 1, ecommerce 21**) upon request to a multiplicity of Host distributed devices (**Fig. 1, providers 30, 32, 34, 36**) including at least the M Host distributed devices, and a Server system (**Fig. 1, central task server (CTS), CTS 26**) for selectively distributing the workloads for processing by the distributed processing system comprising the steps of: (a) sending a software agent (**page 11, lines 6-13, (i.e. software unit); see also CE 'pop up' window, page 13, line 12**) to a number N of Host distributed devices (**Fig. 1, providers 30, 32,**

Art Unit: 2664

34, 36) selected from the M Host distributed devices (**Fig. 1, providers 30, 32, 34, 36; see also virtual cluster, page 19, lines 24-28**), the software agent configured to start a program execution at a predetermined first time interval (**page 9, lines 12-14**); (b) sending a test program (**assess capabilities, page 19, lines 18-21**) to each of the N Host distributed devices, wherein the test program is configured to request a service (**Fig. 1, ecommerce 21**) from a first network site (**Fig. 1, network 29**) selected from the one or more network sites; and (c) sending a request to each of the N Host distributed devices to concurrently start execution of the test program at the first time interval (**simultaneous execution, page 24, lines 16-17**).

10. With regard to claim 43, Armentrout et al. discloses a computer program product operating within a Server system (**Fig. 1, a central task server (CTS), CTS 26, inherently is running a computer program product**) coupled to a network (**Fig. 1, network 28**) and managing a distributed processing system, the network (**Fig. 1, network 28**) configured to enable the Server system (**Fig. 1, CTS 26**) to selectively couple a number M of Host distributed devices (**Fig. 1, providers 30, 32, 34, 36**) to perform workloads (**computing tasks, page 6, lines 13-16; see also balancing data processing loads based on the capabilities of the provider computer and the bandwidth that is available to provide elements and tasks to provider computers, page 18, line 27 to page 19, line 2**) for the distributed processing system, the program product comprising a program of instructions for performing the program steps of: a) sending a software agent (**Compute Engine (CE), running on a provider computer 24, page 7, lines 11-15; page 11, lines 6-13, (i.e. software unit); see also CE 'pop up' window, page 13, line 12**) to a number N Host distributed devices (**Fig. 1, providers 30, 32, 34, 36**) selected from the M Host distributed

devices (**Fig. 1, providers 30, 32, 34, 36; see also virtual cluster, page 19, lines 24-28**), the software agent (**CE**) configured to start a program execution at a predetermined first time interval (**page 9, lines 12-14**); b) sending a test program (**assess capabilities, page 19, lines 18-21**) to each of the N Host distributed devices (**Fig. 1, providers 30, 32, 34, 36**), wherein the test program is configured to request a service (**Fig. 1, ecommerce 21**) from a first network site (**Fig. 1, network 29**) selected from the one or more network sites; and c) sending a request to each of the N Host distributed devices (**Fig. 1, providers 30, 32, 34, 36; see also virtual cluster, page 19, lines 24-28**) to concurrently start execution of the test program at the first time interval (**simultaneous execution, page 24, lines 16-17**).

11. With regard to claims 36 and 48, Armentrout et al discloses the step of receiving a request from one of the Client systems to test a network site coupled to the network (**page 19, line 24 to page 20, line 20**).

12. With regard to claims 37 and 49, Armentrout et al. discloses that the test program (**assess capabilities, page 19, lines 18-21**) sent to each of the N Host distributed devices (**Fig. 1, providers 30, 32, 34, 36**) is the same test program (**for example, the client may request only a certain CPU speed, page 19, lines 26-28**).

13. With regard to claims 38 and 50, Armentrout et al. discloses that each of the N Host distributed devices is sent a different test program (**(i) CPU speed, (ii) bandwidth, (iii) intermittent or constant connectivity, etc., page 19, lines 25-28**) wherein each test program

Art Unit: 2664

requests a different service (**Fig. 1, ecommerce 31**) from the first network site. It is inherent that that, when assessing capabilities, such as CPU speed and/or bandwidth, as in Armentrout et al., that different services can be broken down and searched for individually in separate test programs for services (**Fig. 1, e-commerce 31**) to include (**bandwidth minimums, CPU speed (page 19, lines 25-28), billing, cost, and checking on-line ledger, page 18, lines 13-16**).

14. With regard to claims 39 and 51, Armentrout et al. disclose that the M Host distributed devices are coupled to the network in response to an incentive (**page 39, lines 1-13**).

15. With regard to claims 40 and 52, Armentrout et al. discloses that the network site (**Fig. 1, network 29**) is an internet web site. It is inherent that a ecommerce service 31 in Fig. 1, would operate an internet website in order for the client check online ledgers or to transfer money or credits to the CTS 26 in order to continue using the distributed processing power of the system.

Claim Rejections - 35 USC § 103

16. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2664

17. Claims 32-34, 42, 44-46, and 54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Armentrout et al. as applied to claims 31 and 43, and further in view of Vaid et al. (USP 6,078,953).

18. With regard to claims 32-34, 42, 44-46, and 54 Armentrout et al. discloses receiving, in the Server system, a status from each of the N Host distributed devices in a second time interval following the first time interval (**for example, after benchmark tests are completed, page 25, line 21**). Furthermore, Armentrout et al. discloses that the status is generated automatically by the Host distributed devices (**job monitoring, page 10, lines 10-15**). Armentrout et al. also discloses that the status is generated in response to a request from the Server system (**for example, while updating the provider computer's capabilities and availability, page 22, lines 19-21**). Moreover, Armentrout et al. discloses that a response time as an indicator of status (**col. 18, lines 17-22**). However, Armentrout et al. does not specifically disclose quality of service status of the test program. However, Vaid et al. teaches that quality of service testing is well known (**col. 2, lines 5-14; see also col. 4, lines 7-55, see also col. 10, lines 9-22**). Thus, it would have been obvious to a person of ordinary skill at the time of the invention to modify the benchmark tests and/or data checking disclosed in Armentrout et al. with quality of service testing of Vaid et al. to obtain quality of service status.

Art Unit: 2664

19. Claims 41 and 53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Armentrout et al. as applied to claims 31 and 43 above, and further in view of Harvey et al. (USP 6,052,584).

20. With respect to claims 41 and 53, Armentrout et al. discloses testing content delivery **(checking that the computations are correct, see page 19, lines 6-23)** from a network site **(Fig. 3, network 29)**. Armentrout et al. does not disclose the load testing wherein the claimed testing is performed when the most amounts of distributed computing devices would be accessing the claimed first network site. Harvey et al., however, teaches that load testing is well known **(see abstract)**. Moreover, Harvey et al. discloses that a group of distributed devices are scheduled to access the network site at the same time to provide a desired load on the network site **(i.e., traffic loading in the cell, see Abstract)** and at least one other distributed device is scheduled to access the network site to determine a response time for interaction with the network site when it is being loaded by the first group of distributed devices **(a mobile unit traverses the cell along a predetermined path and response info is recorded, see abstract)**. Thus, it would have been obvious to a person of ordinary skill at the time of the invention to modify the data checking disclosed in Armentrout et al. with the load testing of Harvey et al. to load the network with distributed devices **(those testing providers 30-36 testing the network site 29, in addition to the other (not used in testing) providers 30-36 accessing the network 29 at a peak usage time)** and use one device to determine response data when interacting with the loaded network.

21. Claims 55 is rejected under 35 U.S.C. 103(a) as being unpatentable over Armentrout et al. and further in view of Vaid et al. (USP 6,078,953).

With regard to claim 55, Armentrout et al. discloses a software agent (**Compute Engine (CE)**, **running on a provider computer 24**, **page 7, lines 11-15; page 11, lines 6-8**) operating within each of a multiplicity of Host distributed devices (**Fig. 1, providers 30, 32, 34, 36**) coupled to a network (**Fig. 1, network 28**), the network configured to enable a Server system (**Fig. 1, a central task server "CTS"**) to selectively couple the multiplicity of Host distributed devices (**Fig. 1, providers 30, 32, 34, 36**) to perform workloads (**computing tasks**, **page 6, lines 13-16**) for a distributed processing system, the software agent comprising a program of instructions for performing the program steps of: receiving a request from the server system (**Fig. 1, CTS 26**) to process a test program workload (**assess capabilities**, **page 19, lines 18-21**, **for example, benchmark tests and test tasks with known results**, **page 19, lines 18-21; see also page 25, lines 19-21**) in one of the multiplicity of Host distributed devices (**Fig. 1, providers 30, 32, 34, 36; see also virtual cluster**, **page 19, lines 24-28**) for testing a site (**Fig. 1, network 27**) coupled to the network (**Fig. 1, network 28**); receiving the test program (**assess capabilities**, **page 19, lines 18-21**) and a predetermined first time interval (**page 9, lines 12-14**), the test program configured to request a service (**benchmark tests and test tasks with known results**, **page 19, lines 18-21; see also page 25, lines 19-21**) by accessing the site (**for example, checking bandwidth**, **page 25, lines 19-21**); starting an execution of the test program in a first Host distributed device selected from the multiplicity of Host distributed devices at the first time interval (**page 9, lines 12-14**); and sending a status to the Server system (**Fig. 1, CTS 26**) at a second time following the first time interval (**for example, after benchmark tests are**

completed, page 25, line 21), the status indicating a quality of service provided to the first Host distributed device at the first time interval. Armentrout et al. does not specifically disclose quality of service as the site status of the test program. However, Vaid et al. teaches that quality of service testing is well known (**col. 2, lines 5-14; see also col. 4, lines 7-55, see also col. 10, lines 9-22**). Thus, it would have been obvious to a person of ordinary skill at the time of the invention to modify the benchmark tests and/or data checking disclosed in Armentrout et al. with quality of service testing of Vaid et al. to obtain quality of service site testing status.

22. With regard to claim 56, Armentrout et al. discloses that the status is determined by monitoring a response sent to the first Host distributed device by the site following the first time interval (**for example, after benchmark tests are completed (page 25, line 21), and the response is sent (i.e., job monitoring, page 10, lines 10-15 and updating the provider computer's capabilities and availability, page, 22, lines 19-21)**)

Conclusion

23. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

24. A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the

Art Unit: 2664

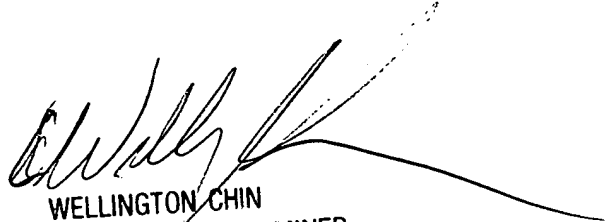
THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

25. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark A Mais whose telephone number is (703) 305-6959. The examiner can normally be reached on 8:00-4:30.

26. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin can be reached on (703) 305-4366. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

27. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

April 29, 2004


WELLINGTON CHIN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600